ANALISA DAN RANCANGAN PERFORMA JARINGAN PADA FAKULTAS HUKUM UNTAG SEMARANG

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ABSTRAK

Untuk mendukung kegiatan belajar mengajar dan meningkatkan kualitas para lulusan di fakultas hukum Untag Semarang dilakukan modernisasi di bidang ICT. Akan tetapi kinerja jaringan yang ada tidak berjalan maksimal sehingga mengganggu kegiatan belajar dan mengajar di Universitas tersebut. Untuk mengatasi masalah tersebut dilakukan analisa untuk memenuhi kebutuhan jaringan tersebut melalui survey dan wawancara. Mulai dari menganalisa jaringan yang ada, menambah bandwith oleh ISP GMedia, merubah topologi di mana server dapat diakses secara lokal, penanganan beban trafik internet dengan load balance antara ISP GMedia dan Telkom, hingga mensimulasikan desain jaringan untuk mendapat hasil kinerja yang terbaik. Metode yang penulis gunakan adakah NDLC meliputi analisis, desain, simulasi, implementasi, monitoring dan manajemen .Dari uraian diatas dapat disimpulkan bahwa penambahan bandwith internet, perubahan topologi, dan teknik load balance dapat meningkatkan troughput dan menekan waktu delay sehingga dapat mengoptimalkan kinerja jaringan.

Kata Kunci : Topologi, Simulasi, Load Balance, NDLC, Bandwidth

ANALYSIS AND DESIGN OF NETWORK PERFORMANCE ON FACULTY OF LAW AT UNTAG SEMARANG

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ABSTRACT

To support teaching and learning activities and improve the quality of graduates in law faculty Untag Semarang modernization in the field of ICT. However, the performance of the existing network is not running optimally so that interfere with learning and teaching activities at the University. To overcome these problems, an analysis is done to meet the needs of the network through surveys and interviews. Starting from analyzing existing networks, increasing the bandwidth by ISP GMedia, changing the topology on which servers can be accessed locally, handling internet traffic loads with load balances between ISP GMedia and Telkom, to simulate the network design to get the best performance results. The method that the writer uses is NDLC include analysis, design, simulation, implementation, monitoring, and management. From the above description, it can be concluded that the addition of internet bandwidth, topology changes, and load balance techniques can increase throughput and delay time so as to optimize network performance.

Keyword : Topology, Simulation, Load Balance, NDLC, Bandwidth